

Amendments to the Claims

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B<sub>2</sub> Claim 1. (Currently amended) A high pixel density optical image sensor comprising a plurality of organic photosensors arrayed on a common substrate, said photosensors each comprising an active layer comprising a conjugated semiconducting polymer bounded on one side by a first electrode and on the other side by a second electrode, with a detector bridging the first and second electrodes and capable of detecting an electrical output from the photosensor in response to the an incident light sensed by the photosensor, wherein the incident light has multiple spectral bands and wherein more than one spectral band is sensed simultaneously.

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Claim 2. (Cancelled)

Claims 3-18. (Cancelled)

Claims 19-29. (Withdrawn)

Claims 30-39. (Cancelled)

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B<sub>3</sub> Claim 40. (New) The image sensor of claim 1 wherein the ability of the photosensors to detect multiple spectral bands simultaneously is achieved by the selection of material, device thickness adjustment, optical filters, stacking sensors, mirrors, an optical dispersion device and combinations thereof.

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